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EXAMINER
TROTTER, SCOTT S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 November 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-21, 23-152 and 154-156_ is/are pending in the application.

    4a) Of the above claim(s) _See Continuation Sheet_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,4,5,15,18,23,24,52,54,66,82,88,114,132,135-138,146,149,152 and 154-156_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _See Continuation Sheet_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2,3,6-14,16,17,19-21,25-51,53,55-65,67-81,83-87,89-113,115-131,133,134,139-145,147,148,150 and 151.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/10/2008, 11/10/2008,(there are two with the same date) 2/03/2009.

DETAILED ACTION

1.　　This action is in response to the amendment received November 10, 2008.

Claims 1-21, 23-152, and 154-156 are pending but claims 2, 3, 6-14, 16, 17, 19-21, 25-

51, 53, 55-65, 67-81, 83-87, 89-113, 115-131, 133, 134, 139-145, 147, 148, 150, and

151 are withdrawn from consideration. Claims 22 and 153 are cancelled.

Response to Arguments

2.　　Applicant's arguments were considered but were not persuasive. Regarding "in

which vending machine transaction data is automatically communicated to the

computing platform responsive to an update to the vending machine transaction string"

McGarry teaches sending commands from a remote host to an audit module to cause it

to send data to the remote host. (*see McGarry paragraphs 0007 and 0021*). While

McGarry does not call it a "vending machine transaction string" it is a string of data sent

to a vending machine setting up a transaction so functionally that is what it is therefore

McGarry teaches the limitation in question.

Information Disclosure Statement

3.　　An initialed and dated copy of Applicant's IDS form 1449 filed 11/10/2008,

11/10/2008, (yes the same date as the one before) and 2/032009 are attached to the

instant Office action.

Claim Rejections - 35 USC § 103

4.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 4, 5, 15, 23, 24, 54, 66, 82, 88, 114, 132, 135-138, 146, 152, and 154

rejected under 35 U.S.C. 103(a) as being unpatentable over McGarry et al. (European

Patent Application EP 0,986,033 A2 which was cited in the IDS dated 5/22/2008

referred to hereafter as McGarry) in view of Howell et al. (U.S. Patent 6,462,644

hereafter Howell) and (Editor & Publisher Vol. 126, Iss. 24 Page 62 hereafter E&P).

As per claim 1 McGarry teaches:

A semiconductor comprising:

a memory; (*see McGarry paragraph 6*)

a vending equipment interface for connecting the semiconductor to a vending machine;

(*see McGarry paragraphs 20 and 21*)

an interactive interface for connecting the semiconductor to a computing platform; (*see*

McGarry paragraph 21. Connecting to a remote host to configure the audit module is

an interactive interface.)

and

a micro processing unit interconnected with the vending equipment interface, the

interactive interface, and the memory that constructs and manages a vending machine

transaction string in the memory, the vending machine transaction string comprising

data fields, the micro processing unit configured to update the data fields to record

vending machine transactions received through the vending equipment interface, the

micro processing unit configurable in at least two different configurations responsive to commands received from the computing platform via the interactive interface, the at least two different configurations including a first configuration in which vending machine transaction data is automatically communicated to the computing platform responsive to an update to the vending machine transaction string and a second configuration in which vending machine transaction data is communicated to the computing platform responsive to a request from the computing platform.

While McGarry teaches a device that is connected to a vending machine to monitor vending machine data and keep a database of what it is monitoring. (*see McGarry paragraph 5*) It also teaches being able to modify how that data is retrieved including sending it when requested or sending it when a particular event occurs. (*see McGarry paragraph 7*) While it does not explicitly teach what format that data will be stored in or the format it will be sent in Howell teaches sending data in MDB Transaction strings. (*See Howell column 4 lines 28-47.* Connections made using the MDB protocol will inherently use MDB TRANSACTION STRINGs to communicate which requires such strings to be constructed in memory.) While Howell is not explicit about sending transaction data E&P teaches compiling transaction data from vending machines and then uploading it to a server where it could be sent to banks for payment. (*See E&P page 2 paragraph 2.*) Therefore it would have been obvious to a user of ordinary skill in the art at the time the invention was made to use the monitoring and reconfigurable interface taught in McGarry with the data format taught in Howell in order to monitor transaction data on a vending machine and send it to a central server as taught by E&P.

As per claims 4, 15, 114 while McGarry does not explicitly teach what kind of vending machine interface was used. Howell taught using one that could be connected to either a MDB or DEX compliant controller. (*See Howell column 4 lines 35-38*) Therefore it would have been obvious to a user of ordinary skill in the art at the time the invention was made to use at least one of those interfaces to retrieve information from the vending machines.

As per claim 5 McGarry and Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits. (*See Howell Fig. 3.* An RS232 is a UART. A UART can be configured to transmit data in any serial format. Therefore while McGarry and Howell do not explicitly disclose formatting the data in a particular way it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select a format that could transmit the needed data.)

As per claim 23 McGarry teaches one the kinds of data to be included being the price of an item. (*see McGarry paragraph 32*)

As per claim 24 clearing the data buffer is inherent with receiving data otherwise only one message could ever be received. (*see McGarry paragraph 30.* Establishing communication channels calls for receiving more than one message.)

As per claim 54 see the rationale of claim 1 above terminating connections is inherent in maintaining data connections otherwise it would be necessary to maintain a near infinite number of connections.

As per claim 66 McGarry teaches the device sending captured data to the host based on received commands. (*see McGarry paragraph 7*)

As per claim 82 McGarry and Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor communicate with a printer. (*See Howell Fig. 3.* The specification states the printer connection can be an RS232 connection, which is included in Howell making it obvious to attach a printer to the RS232 connection belonging to the device in Howell. While a printer is not shown in Howell it would have been obvious to a person of ordinary skill in the art at the time the invention was made that a printer could be connected via the RS232 connection.)

As per claim 88 while McGarry does not explicitly teach communicating configuration data it does teach sending data from the audit module to the host. (*See McGarry paragraph 7*) Howell teaches sending such handshaking data. (*see Howell column 4 lines 64-67*) Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to request the sending of such handshaking data to setup the communication channels used in McGarry.

As per claim 132 McGarry teaches:

A semiconductor implementing an interactive interface communication protocol with a computing platform, said semiconductor comprising:

a memory; (*see McGarry paragraph 6*)

a vending equipment interface for connecting the semiconductor to a vending machine;

(*see McGarry paragraphs 20 and 21*)

an interactive interface for connecting the semiconductor to a computing platform; (*see*

McGarry paragraph 21. Connecting to a remote host to configure the audit module is

an interactive interface.)

and

a micro processing unit interconnected with the vending equipment interface, the

interactive interface, and the memory that constructs and manages a vending machine

transaction string in the memory, the vending machine transaction string comprising

data fields, the micro processing unit configured to update the data fields to record

vending machine transactions received through the vending equipment interface, the

micro processing unit configurable in at least two different configurations responsive to

commands received from the computing platform via the interactive interface, the at

least two different configurations including a first configuration in which vending

machine transaction data is automatically communicated to the computing platform

responsive to an update to the vending machine transaction string and a second

configuration in which vending machine transaction data is communicated to the

computing platform responsive to a request from the computing platform.

     While McGarry teaches a device that is connected to a vending machine to

monitor vending machine data and keep a database of what it is monitoring. (*see*

McGarry paragraph 5) It also teaches being able to modify how that data is retrieved

including sending it when requested or sending it when a particular event occurs. (*see*

McGarry paragraph 7) While it does not explicitly teach what format that data will be

stored in or the format it will be sent in Howell teaches sending data in MDB Transaction

strings. (*See Howell column 4 lines 28-47.* Connections made using the MDB protocol

will inherently use MDB TRANSACTION STRINGs to communicate which requires such

strings to be constructed in memory.) While Howell is not explicit about sending

transaction data E&P teaches compiling transaction data from vending machines and

then uploading it to a server where it could be sent to banks for payment. (*See E&P*

page 2 paragraph 2.) Therefore it would have been obvious to a user of ordinary skill in

the art at the time the invention was made to use the monitoring and reconfigurable

interface taught in McGarry with the data format taught in Howell in order to monitor

transaction data on a vending machine and send it to a central server as taught by E&P.

As per claims 135, 138, 146 while McGarry does not explicitly teach what kind of

vending machine interface was used. Howell taught using one that could be connected

to either a MDB or DEX compliant controller. (*See Howell column 4 lines 35-38*)

Therefore it would have been obvious to a user of ordinary skill in the art at the time the

invention was made to use at least one of those interfaces to retrieve information from

the vending machines.

As per claim 136 McGarry and Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending

equipment interface comprises a UART, said UART being configured to data

communicate eight data bits and one address bit in addition to start and stop bits. (*See*

Howell Fig. 3. An RS232 is a UART. A UART can be configured to transmit data in any

serial format. While no particular format is suggested in Howell it would have therefore been obvious to a person of ordinary skill in the art at the time the invention was made to select a format that could transmit the needed data and eight data bits with a data parity check bit and start and stop bits is a standard format.)

As for claim 137 McGarry and Howell teaches:

The semiconductor in accordance with claim 136 wherein, said semiconductor by way of said UART detects a valid address byte data communicated from said vending machine, said valid address byte indicates data to follow from said vending machine is intended for said semiconductor, upon detecting said valid address byte said semiconductor data communicates with said vending machine. (*See Howell Column 4 Line 64-Column 5 Line 3.* The handshaking is two devices agreeing that they are meant to talk to each other and how they are going to format the messages. The valid address byte is the equivalent of a phone number and it is just confirming the right number was called before sending the data. Detecting an address is a standard part of the Ethernet protocol. While Howell does not explicitly disclose the details involved in handshaking they would be obvious to a person of ordinary skill in the art at the time the invention was made.)

As per claim 152 while McGarry does not explicitly teach what kind of vending machines are being monitored Howell teaches monitoring beverage style vending machines. (*see Howell figures 1 and 4A.* In figure 1 it looks like a cold beverage machine, In figure 4A a data source is a Bottler which would be a beverage machine.)

Therefore it would have been obvious to a user of ordinary skill in the art at the time the

invention was made to monitor data from beverage vending machines.

As per claim 154 one of the conditions McGarry teaches monitoring is sold-out.

(*see McGarry paragraph 2.*) Therefore it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to monitor Vend State such

as being sold out of a particular product.

6.   Claims 18 and 149 are rejected under 35 U.S.C. 103(a) as being unpatentable

over McGarry in view of Howell, E&P and Squires (U.S. Patent 7,032,038 B1).

As per claim 18 McGarry and Howell teach:

The semiconductor in accordance with claim 1 wherein, said vending equipment

interface comprises a UART, (*See Howell Figure 3.* RS232 is a UART. But Howell

does not address pin level configurability.) said UART transmit line is pin level

configurable during non-data communication idle states to a high impedance state or a

low signal level state. (*See Squires claims 1 and 2.* Claim 1 is pin level configurable

device and claim 2 is that device being a UART. Since the Squires device does not

have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to include the pin level configurability of the Squires device

for greater ease of use in the McGarry and Howell devices. (*See Squires abstract.*)

As per claim 149 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending

equipment interface comprises a UART, (*See Howell Figure 3.* RS232 is a UART. But

Howell does not address pin level configurability.) said UART transmit line is pin level

configurable during non-data communication idle states to a high impedance state or a

low signal level state. (*See Squires claims 1 and 2.* Claim 1 is pin level configurable

device and claim 2 is that device being a UART. Since the Squires device does not

have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to include the pin level configurability of the Squires device

for greater ease of use. (*See Squires abstract.*)

7.   Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over McGarry

in view of Howell, E&P and Miller et al. (U.S. Patent 5,959,869).

McGarry and Howell teach:

The semiconductor in accordance with claim 1, wherein said computing platform

by way of said interactive interface data communicates a command to said

semiconductor to request said semiconductor data communicate MDB TRANSACTION

STRING data (*See Column 4 Lines 28-47.* Connections made using the MDB protocol

will obviously use MDB TRANSACTION STRINGs to communicate.) and card reader

data to said computing platform (While Howell does not explicitly teach sending card

reader data Miller teaches the MDB bus as a standard for communicating with card

readers which are well known in the vending machine industry. *See Miller Column 11*

Lines 19-22.)

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to send the MDB TRANSACTION String data and the card

reader data to the computing platform where it could be data mined for marketing opportunities that might further vending machine profitability.

8.   Claims 155 and 156 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGarry in view of Howell, E&P and Official Notice.

As per claim 155 McGarry, Howell and E&P teach:

The semiconductor in accordance with claim 1, wherein said vending equipment interface is configured to receive power from and data communicate with the vending machine (see McGarry Figure 25) such that the semiconductor operates using the power received via the vending equipment interface.

McGarry does not explicitly teach how the audit device is powered but Official Notice is taken that it is old and well known in the art of electronic devices to put devices such as modems into computers that are powered by the computer therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to power a module to be installed in a vending machine using power from the vending machine.

As per claim 156 McGarry, Howell and E&P teach:

The semiconductor in accordance with claim 1, but do not explicitly teach the communication protocol described but Official Notice that the protocol described is asynchronous communication standard on serial communication lines such as from a mouse or keyboard where timeouts are used to that no signal was sent at this time. The setting of the first timer is the equivalent of setting a baud rate with the second timer being the equivalent of setting a buffer size which can be adjusted by software

whenever they are called. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use such a protocol to transfer data between devices.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10.   The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

- PC Techniques C/C++ Power Tools HAX, Techniques, and Hidden Knowledge by Duntemann and Weiskamp teach using asynchronous serial connections including setting baud rates, and buffer size.

11.   Examiner's Note: The Examiner has cited particular columns and line numbers

in the references as applied to the claims for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are

applied to the specific limitations within the individual claim, other passages and figures

may apply as well. It is respectfully requested from the applicant, in preparing the

responses, to fully consider the references in entirety as potentially teaching all or part

of the claimed invention, as well as the context of the passage as taught by the prior art

or disclosed by the examiner.

12.   Any inquiry concerning this communication from the examiner should be directed

to Scott S. Trotter, whose telephone number is 571-272-7366. The examiner can

normally be reached on 8:30 AM – 5:00 PM, M-F.

13.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James P. Trammell, can be reached on 571-272-6712.

14.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

15.   The fax phone number for the organization where this application or proceeding

is assigned are as follows:

          (571) 273-8300   (Official Communications; including After Final

                              Communications labeled "BOX AF")

(571) 273-6705   (Draft Communications)

sst
2/20/2009

/James P Trammell/
Supervisory Patent Examiner, Art Unit 3694